

## REMARKS

Claims 1-22 are pending in the application and stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### REJECTION UNDER 35 U.S.C. § 102

The Outstanding Office Action states that Claims 12-15 and 20-22 are rejected under 35 U.S.C. §102(b) as being anticipated by Hatch (U.S. Patent No. 4,954,683). This rejection is respectfully traversed.

Claims 12-15 and 20-22 each include the limitation that the **adjacent perimeter surfaces** provide **both** electrical contact **and** passage of the fluid. Adjacent perimeter surfaces are specifically defined in paragraph [0133] of the written description in the specification as surfaces "defined by taking a section cut along a lateral plane through the interface between the electrode and the cathode or other cathodic element."

Hatch, however, does not disclose such perimeter surfaces that provide both electrical contact and passage of fluid for cooling. In Hatch, the cathode body 14 has a plurality of radial fins 20 in contact with a conductive cap 18 and creating a spiral passageway 22 between the fins 20 of the cathode body 14. (See col. 3, lines 60-63). A section cut along a lateral plane in Hatch does not result in adjacent perimeter surfaces that provide both electrical contact and passage of the cooling fluid.

More specifically, when a section cut is taken with a lateral plane where one of the fins is positioned, the interface between the cathode body 14 and the cap 18 is defined by two contacting surfaces around the entire periphery of the cathode body 14 and the cap 18, therefore establishing only electrical contact and not allowing for the

passage of cooling fluid. Conversely, when a section cut is taken with a lateral plane where no fin is positioned, the interface between the cathode body 14 and the cap 18 is in the form of a gap around the entire cathode body 14, therefore establishing only passage of fluid and not providing any electrical contact.

Since Hatch does not disclose adjacent perimeter surfaces that provide both electrical contact and passage of cooling fluid, Claims 12-15 and 20-22 cannot be anticipated. Accordingly, Applicants respectfully request that these claim rejections be withdrawn.

#### **REJECTION UNDER 35 U.S.C. § 103**

The Outstanding Office Action states that Claims 1-11 and 16-19 are rejected under 35 U.S.C. §103 as being unpatentable over Hatch in view of Horner-Richardson et al. (U.S. 20030034333). These rejections are respectfully traversed.

Claim 9 has been amended to clarify that the adjacent perimeter surfaces provide the electrical contact and provide passage of the cooling fluid. Similarly, Claims 1-11 and 16-19 each include the limitation that the adjacent perimeter surfaces provide both electrical contact and passage of cooling fluid.

As previously set forth, Hatch does not teach or disclose adjacent perimeter surfaces that provide both electrical contact and passage of cooling fluid as that term is defined in the present application. Hatch and Horner-Richardson et al. cannot render these claims obvious since neither Hatch nor Horner-Richardson et al. discloses such adjacent perimeter surfaces. Accordingly, Applicants respectfully request that the rejections of Claims 1-11 and 16-19 be withdrawn.

## CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the Outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

Dated: 03 JAN 05

By: Kelly K. Burris  
Kelly K. Burris  
Reg. No. 46,361

Harness, Dickey & Pierce, P.L.C.  
7700 Bonhomme Rd., Suite 400  
St. Louis, MO 63105  
(314) 726-7500